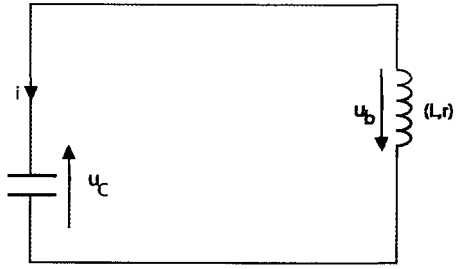
t_1	$U_{C_{max}} > 0$ / $q_A > 0$ / $q_B < 0$	$i = 0$
t_2	$U_C = 0$ / $q_A = 0$ / $q_B = 0$	i = CP(T) = C × pente de tangente à la courbe. $i = 15.10^{-6}(1,14.10^{4})$ $= -0,17A$

$$u_C \searrow \text{ donc } \frac{du_C}{dt} < 0 \rightarrow C\frac{du_C}{dt} = i < 0$$

Le courant circule dans le sens inverse du sens indiqué dans le schéma.

5) $3T = 12.10^{-3}s \Rightarrow T = 4ms$

6) a-



$$u_C + u_B = 0$$

$$u_C + L\frac{di}{dt} + ri = 0$$

$$u_C + L\frac{d^2q}{dt^2} + r\frac{dq}{dt} = 0$$

$$u_C + LC\frac{d^2u_C}{dt^2} + rC\frac{du_C}{dt} = 0$$

$$\frac{1}{C}u_C + L\frac{d^2u_C}{dt^2} + r\frac{du_C}{dt} = 0$$

$$\frac{1}{CL}u_C + \frac{d^2u_C}{dt^2} + \frac{1}{L}r\frac{du_C}{dt} = 0$$

$$\frac{d^2u_C}{dt^2} + \frac{r}{L}\frac{du_C}{dt} + \frac{1}{LC}u_C = 0$$

$$A = \frac{r}{L} \qquad B = \frac{1}{LC}$$